

## Abstract

**Modulation and demodulation of OFDM signals**

- 5 The invention relates to a method for modulating sub-carrier symbols to an intermediate-frequency OFDM signal having even and odd samples, including following steps:
- transforming a number N of the sub-carrier symbols to pre-processed sub-carrier symbols;
  - 10 - performing a complex inverse discrete Fourier transformation (IDFT) on the pre-processed sub-carrier symbols to generate complex output symbols; and
  - transforming the complex output symbols to the intermediate-frequency OFDM signal,
- 15 wherein the sub-carrier symbols are transformed so that the even and odd samples of the intermediate-frequency OFDM signal are given by real and imaginary parts of the complex output symbols.